

Application No. 10/527,241
Amendment Dated: September 4, 2009
Reply to Office Action of: July 20, 2009

REMARKS/ARGUMENTS

Applicant has amended claims 1, 2, 12, 13, 24, 25, 27, 28, 29, and 30 of the claims in issue considered by the Examiner in the Office Action dated July 20, 2009. Upon entry of the response and of the amendments, claims 1-25 and 27-30 are pending for reconsideration by the Examiner.

Upon further reflection, Applicant has amended the claims to delete the terms "sufficient", "positionable," "heel of the hand," etc., and to better define the invention. Specifically, the amendments concern new limitations of mouse operation in Claims 1, 2, 12, 13, 29 and 30 and some grammatical corrections.

New limitations concerning mouse operation are recited. Specifically, the term "lower palm" and "palm plane" are cited in Claims 1, 2, 12 and 13. As for the use of the term "lower palm," the term is used by Applicant in Claim 1 to define the position of the user's hand on the working surface as "...a user's lower palm,... resting on the working surface..." The term is used in some paragraphs of the specification as "low palm." The support of the amendments in Claim 25 is explicitly given in Applicant's specification, paragraphs 0050-0052, and in drawings, Figs. 5-7.

The amendatory language inserted into claims 1, 2, 12, 13, 24, 25, 27, 28, 29, and 30 now clearly patentably distinguishes the claims over the Adler reference.

Reconsideration of the Examiner's rejection is respectfully requested in view of the following remarks.

The Examiner has rejected Claims 1-13, 24 and 27 -30 under 35 U.S.C. §103(a) as being obvious by Adler (U.S. Patent 6,256,015 B1). Applicant respectfully traverses the rejections.

Applicant continues to assert that claim 1, 2, 6, 7, 29 and 30 were patentable over the cited Adler reference for, among other things, the reason that the Adler reference simply does not fairly or properly disclose, teach or suggest any mould formed on the button surface around the fingertip at a height, which could provide a moulded contact surface for the user's fingertip to move securely the mouse when pushing against such surface by stretching the finger forward parallel to the working surface and which allows the user to actuate the button by a generally downward forward force applied by the fingertip against the moulded contact surface.

A return to fundamentals is in order. In regard to the claimed features of the present application, the Examiner will appreciate that "A computer mouse, as a tool for interacting with a computer has two basic functions, which may be defined as follows:

- a) localizing a point/area/object on a screen of the output device in a visual form such as a cursor, a pointer or the like by manually moving a mouse with a mouse movement sensing system for providing mouse movement signals; and

b) producing control signals at the point/area/object on the screen by depressing a button coupled to the mouse with the user's finger, ..."
(Applicant's reference, Paragraph 0001).

So, the subject matter of the present disclosure is the moulded form of the upper surface of the mouse button, which allows the user to move the mouse without button actuating and to actuate the button without actuating mouse movement by a generally downward forward force applied tangential to the angled upper surface of the mouse button (stroking like) by index or middle finger when stretching against the moulded contact surface. (Claims 1, 2, 29 and 30, Fig. 3)

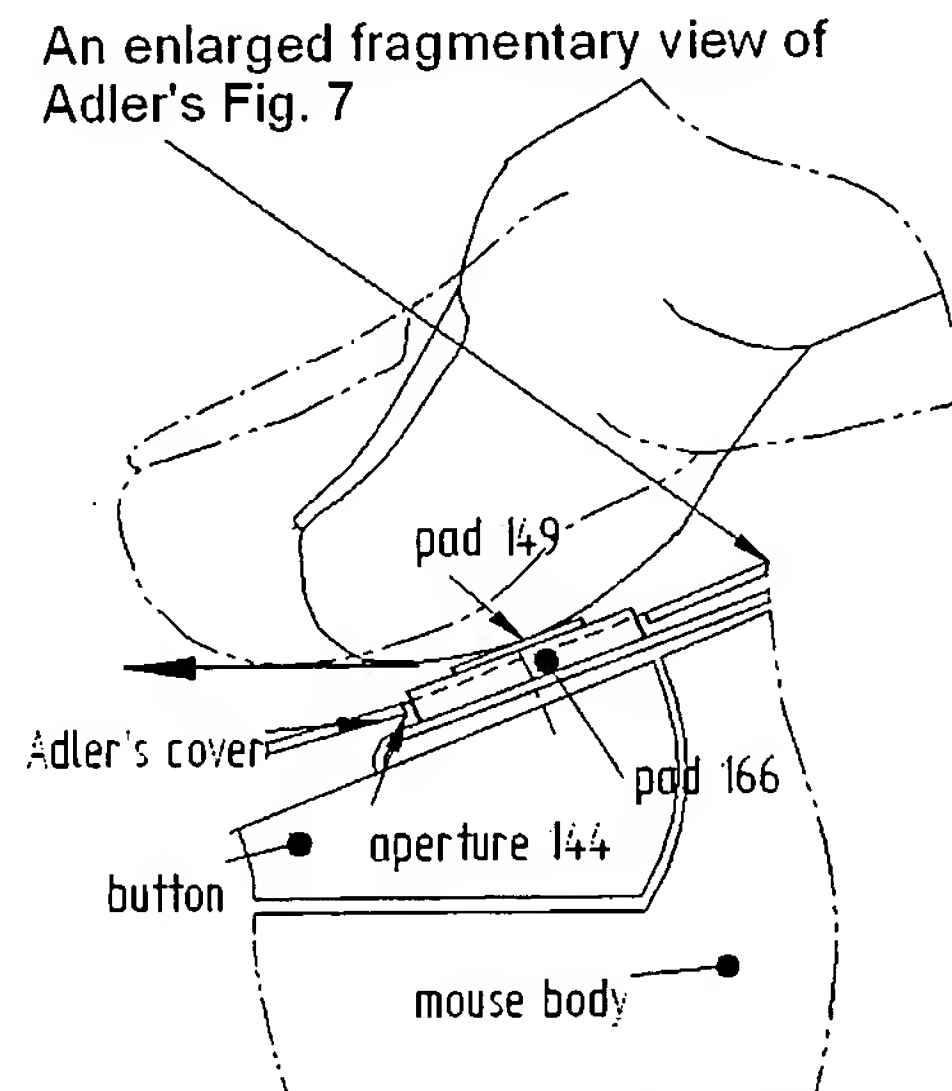
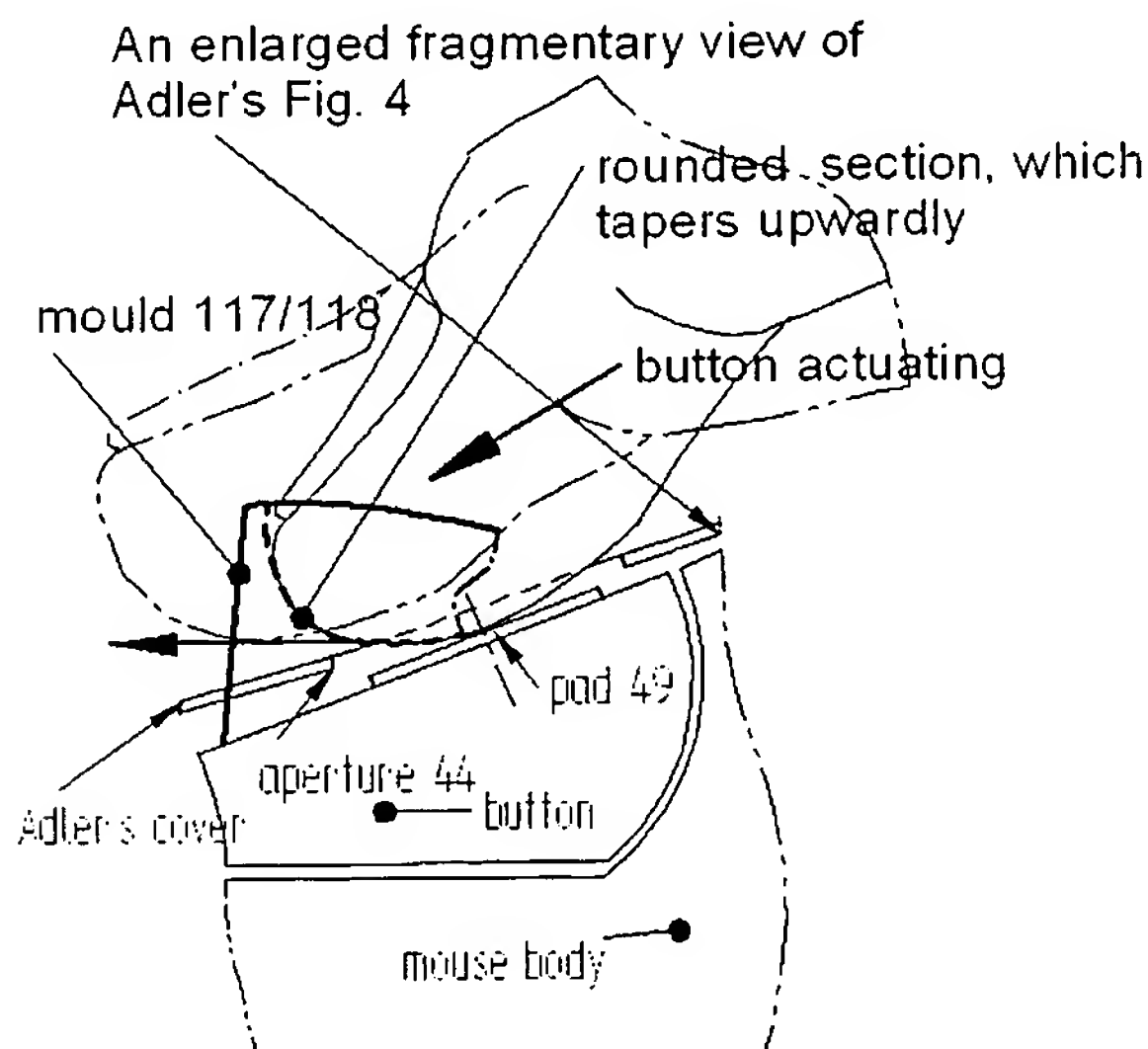
A structure, like an edge of the aperture of Adler's cover, attached to the mouse body cannot be used for mouse button actuating.

It is impossible to actuate the button by a generally downward forward force applied tangential to the upper surface of the conventional mouse button (stroking like) (see submitted illustrations below, and Applicant's Fig. 3).

Therefore, the Examiner's rejections of Claims 1, 2, 29 and 30 concerning the way of button actuating, it is respectfully submitted, are improper.

To support Applicant's assertion, Applicant submits below annotated fragmentary illustrations of Adler's Drawings, Figs. 4 and 7, and further annotated with an inserted contour of the finger and Applicant's mould 117/118. The Examiner will appreciate that the illustrations are drawn by the Applicant in accordance with the Adler reference recited therein that: "*The **middle and rear***

sections 38 and 40 of the shell 30 generally conform in shape to that of the front and rear portions 18 and 22, respectively, of the mouse 12... (Adler, Fig. 1; Column 3, Lines 38-40, emphasis added).



The given illustrations clearly show that by the finger motion forward, parallel to the working surface, the user's finger will not touch the upper edge of the aperture of any of Adler embodiments.

The Examiner will appreciate that to allow the finger movement without any hindrance throughout the aperture by depressing the button the size of the aperture 44 in the cover should provide the sufficient clearance around the finger tip placed on upper angled surface of the button and the upper edge of the aperture so that the fingertip would not touch the upper edge of the aperture.

Therefore, one of ordinary skill could not regard the edge of the aperture 44 as a contact surface with the finger tip placed on the pad 49 attached to the upper surface of the button and situated in the center of the aperture 44, or as

Adler teaches: “a simple pad 166 (of Fig.7) without an arm 160 could be attached to the upper surface of a corresponding one of the buttons of the mouse such that it protrudes upwardly through a corresponding aperture for direct contact by a corresponding one of the user’s fingers” (Column 6, Lines 17-22, Fig. 7, emphasis added). Or one of skill could consider the pad 49 as having the corresponding thickness to protrude through the aperture 44 for direct contact by the user’s finger.

As for a height of the aperture or anything else, it is respectfully submitted, indicated by the Examiner in the rejections, the Examiner will appreciate that in Adler’s Fig. 1 there can be obviously seen the thickness of the edge of the aperture (about 0.032 in. thick) but not a height at which the edge is elevated above the mouse button.

As described in the Adler reference and shown in Figs. 4 and 7, the cover and correspondingly the edge of the aperture is closely elevated over the mouse button surface at a height, the range thereof would be appreciated by one of ordinary skill as being between minimized up to zero.

There is not any surface between the lower edge of the aperture 44 and the upper surface of the pad 49. A contact surface of the pad 49 with the finger tip could not be identified with a surface having a rounded section, which tapers upwardly from the pad, thereby providing a moulded contact surface with the fingertip, as it claimed in Claims 6 and 7 of the present application. Therefore,

the Examiner's rejections of Claims 6 and 7 are, it is respectfully submitted, incorrect.

Further, the Examiner will appreciate that Adler specification contains neither the term "groove" nor "mould," nor is there any proper teaching of these structures.

The use of the terms "groove" and "mould" by the Examiner to construct the phrase of the rejections like: "*Fig. 1 shows the groove for forming a mould around the fingertip.*" is, it is respectfully submitted, misdescriptive.

According to the Oxford Dictionary the following definitions are given as:

an aperture *narrow opening;*

a groove *long narrow cut or depression in the surface of hard material;*

a mould *hollow container with a particular shape, into which a soft or liquid is poured to set or cool into that shape;*

taper *become or make gradually narrower.*

In this context, the Examiner will appreciate that Adler's Fig. 1 shows **an aperture**—*narrow opening*, which should not be interpreted by one of skill as **a groove**—*long narrow cut*, and one of skill should not obviously interpret a surface of a *long narrow cut* as a surface forming **a mould** around the fingertip—*hollow container with a particular shape*.

Thus, as discussed and illustrated above, the Adler reference, and including the drawings, do **not** disclose any contact surface of the aperture in the cover attached to the mouse with the user's fingertip when placed on the upper

surface of the mouse button and situated in the center of the aperture, which might be interpreted as a mould formed around the fingertip, and which might resist the finger motion when stretching it against such surface to move the mouse forward.

Further, taking into consideration the above submitted illustration of Adler's Fig. 7 and description of Adler's Claim 2: *"mouse of claim 1, further comprising the means disposed between the upper surface of the mouse and lower surface of the cover for indirectly actuating the buttons on the mouse with the fingers ...(Column 7, Lines 41-44, emphasis added)," the Examiner will appreciate that one cannot obviously place their finger into the aperture 144 for the simple reason that there is already placed the pad 166, which *"protrudes upwardly through a corresponding aperture for direct contact by a corresponding one of the user's fingers"* (Adler, Column 6, Lines 17-22, Fig. 7).*

The Examiner will appreciate that there is not any structure illustrated in Adler's Figs. 6 and 7, which could resist the finger motion placed onto the pad 149/166 when stretching against such structure in order to move the mouse forward (see an enlarged fragmentary view of Adler's Fig. 7).

None of the references cited or identified by the Examiner, it is respectfully submitted, remotely disclose, taught, or suggest a **form of the upper surface of the mouse button** or a **moulded component attached to the upper surface of the button**, which might provide a moulded contact surface with a fingertip,

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which might allow the user to move securely the mouse by the fingers motions and actuate the button in the way disclosed in the present invention.

Therefore, the Examiner's rejections based on the use of the apertures in Adler's cover attached to a conventional mouse for moving it by the fingers placed into the apertures, it is respectfully submitted, cannot be properly sustained.

The scope and teaching of Adler's disclosure are to provide the protective cover for a conventional mouse, which is matched to the configuration of the mouse body with minimized space between them and which is fabricated from materials like: *"one of preferred materials is 20-guage (about **0.032 in. thick**) sheet-stock of sterling silver"* (Adler, Column 3, Lines 38-40, Column 2, Lines 24-26, Column 6, Lines 33-34 emphasis added).

Adler discloses a cover mounted on a mouse *"that has a body with ...a rear portion having an upper surface shaped to conform generally to the palm and heel of a user's hand ...the mouse to be moved about on a flat surface by the user's hand."* (Adler, Claim 1, Column 7, Lines 15-24, Fig. 2, emphasis added).

In regard to the apparent broad use of Adler's Fig. 1 in the rejections, the Examiner will appreciate that Adler refers to Fig. 2 when describing the form of the mouse and positioning of the user's hand over the cover in the reference as:

*"The mouse 12 is a conventional two-button mouse ...having...a rear portion 22 shaped to **conform to the palm and heel portion of a user's hand** (**see FIG. 2**)"* (Adler, Column 3, Lines 7-13, emphasis added).

This form of the mouse body conformed to the palm plane and heel of the hand is common for a conventional mouse, which allows the user to operate it by hand-arm movement. Adler's cover only enlarges the contact surface with the user's hand.

Adler's cover has a pair of apertures therethrough, each aperture overlaying a corresponding one of the buttons on the front portion of the mouse such that each button can be directly actuated with a finger of the user's hand (Adler, Column 7, Lines 36-40,).

Adler teaches or suggests neither alternative positioning of the user's hand and correspondingly the apertures on the cover nor an alternative way of mouse operating. Therefore, to define the positions of the apertures on Adler's cover one of skill should obviously proceed from the position of the user's hand described in Claim 1 and shown in Fig. 2, which provides the necessary contact surface for the user's hand with the cover in order to move the mouse by hand-arm motions.

One of ordinary skill can easily determine that with their hand plane and heel of the hand being placed on the upper surface of the mouse body (see Adler, Fig. 2) it is impossible to move the mouse by bending the index or middle finger of the same hand in order to effect vertical movement of a pointer on a computer screen in downward direction without the use of hand or arm movement; as well as, it is impossible to turn the mouse by pushing a thumb or a

little finger of the same hand being supported by the mouse body against a respective contact area on a respective side of the mouse.

Furthermore, *"a pair of longitudinal depressions formed into the upper surface ...of the shell and extending rearward from a corresponding one of the apertures.....for aligning the finger with a corresponding one of the buttons"* (Adler, Claim 5, Column 7, Lines 61-64, emphasis added) limits additionally the user in positioning their hand on Adler's cover and operating the mouse in an alternative way.

Applicant is somewhat puzzled about the Examiner's rejections which completely fail to refer to Adler's Figs. 3, 4 and 5 of the preferred embodiment of Adler's disclosure.

Adler's Figs. 1, 4 and 5 show the depressions 46L and 46R formed at the height extending obviously over the top of the rear portion of Adler's cover. It is obvious to one of ordinary skill that with the palm placed on the upper surface of the cover the top edge of the depression 46L or 46R of Figs. 4 and 5 will obviously support the finger positioned in the depression 46L or 46R in order to align the finger with one of the buttons.

One of ordinary skill would conclude that it is obviously impossible to move the mouse with attached cover forward by stretching the finger being supported by the top edge of the depression 46L or 46R against a structure, like an aperture, of the same cover.

The Examiner will readily appreciate the differences in the form of Adler's cover illustrated in Adler's Fig. 5 and the form of the mouse of the present disclosure shown in Applicant's Fig. 9.

Contrary to Adler, Applicant discloses the mouse that has the casing with the rear part which provides sufficient clearance between the upper and rear surfaces of the casing and the user's index and middle fingers, hand plane and lower palm (Claim 2, Fig. 3, 7 and 9) when the user's lower palm, user's ring and little fingertips, and a side of the distal phalanx of the user's thumb are resting on the working surface without gripping the mouse in the naturally relaxed curled fingers and hand position, wherein only the user's index and middle finger tips are supported by the corresponding moulded contact surfaces of the mouse buttons (Claim 1 and 2, Fig. 3).

Claims 3-25, 27 and 28, which depend directly or indirectly on Claims 1 and 2 are patentable for the reasons advanced for Claims 1 and 2.

The length of the rear part of the casing of the present disclosure, measured from the front edge of the moulded contact surfaces of the primary and secondary buttons, allows the user to move the mouse by flexing the user's index and middle finger from the naturally relaxed curled index and middle fingers and hand positions further, into the pocket formed by the relaxed curled hand, so that the rear end of the casing is not interfering with the lower palm resting on the working surface (Claims 12, 13, Fig.3).

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As for the amendatory claim language of mouse operation, the Examiner will appreciate follows:

The primary and secondary buttons of the mouse 100 each are parts of ends of levers, which longitudinally extend from a common plane of the casing on which other ends of the levers are firmly fixed (Claim 24, Drawings 5 and 7). The common plane 140 is inclined toward the front end of the casing relative to a cross panel of the casing (Claim 27, Drawing 7).

It is self-explanatory that the force applied by user's finger against the moulded contact surface of the mould 117 or 118 in direction indicated by arrow 5 of Drawing 3, i.e. parallel to the working surface, will bend the lever 105c or 106c angled to the front rather upwards than downwards (Drawings 3, 5, 6, and 7; paragraphs 0051, 0054). Consequently, the user can actuate forward movement of mouse 100 by stretching the finger, without actuating the primary or secondary button.

The force applied by user's finger on the contact area of the mould 117 or 118 in direction indicated by arrow 6 of Drawing 3 will bend the lever 105c or 106c downwards; thereby, actuating the primary or secondary button without actuating movement of the mouse 100 (see Drawings 3, 5, 6, and 7; paragraphs 0013, 0034, 0048).

Thus, the constructions of the mouse buttons of the present disclosure provide the way of mouse operation and button actuation claimed in Claims 1 and 2.

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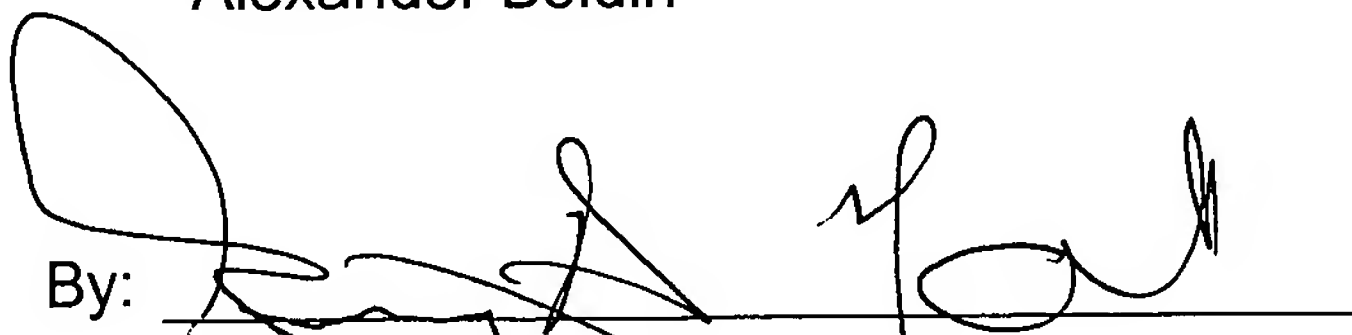
In contrast, as illustrated above, Adler's arm 160 of Fig. 7 and 10 provides neither the mouse movement forward by stretching the finger nor the button actuating by a generally downward forward force applied tangential to the angled upper surface of the mouse button (stroking like). Therefore, the Examiner rejections of Claims 24 and 27, it is respectfully submitted, are improper.

Applicant submits that the amendments as presently submitted very clearly cannot be remotely disclosed, taught, or suggested in the cited Adler reference (or in combination with any other reference cited or identified by the Examiner).

For the reasons discussed herein, Applicant respectfully contends that the Examiner's rejections were improper and respectfully request that the present claims be passed to issuance.

Respectfully Submitted,

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